

Congratulations to Dr. Jayakrishna Pedduri for getting the post-doctoral position at IIT Bombay. His research work is “Numerical Investigation of Continuous Casting”.

Thesis Title:

ANALYSIS OF THERMO-MECHANICAL PHENOMENA AND HEAT TRANSFER CHARACTERIZATION IN CONTINUOUS CASTING

Publications

Journals

1. **P. Jayakrishna**, S. Chakraborty, S. Ganguly, P. Talukdar, ‘Modelling of thermofluidic behaviour and mechanical deformation in thin slab continuous casting of steel: An overview’, Canadian Metallurgical Quarterly, Taylor and Francis, <https://doi.org/10.1080/00084433.2021.2014712>
2. **P. Jayakrishna**, A. S. Vaka, S. Chakraborty, S. Ganguly, P. Talukdar, ‘Interfacial heat flux estimation in a funnel shaped mould and analysis of solidification characteristics in thin slab continuous casting’, Journal of Heat Transfer, ASME, <https://doi.org/10.1115/1.4052204>
3. **P. Jayakrishna**, S. Chakraborty, S. Ganguly, P. Talukdar, ‘A novel method for determining the three dimensional variation of non-linear thermal resistance at the mould-strand interface in billet continuous casting process’, International Communications in Heat and Mass Transfer, Elsevier, <https://doi.org/10.1016/j.icheatmasstransfer.2020.104984>
4. **P. Jayakrishna**, S. Chakraborty, S. Ganguly, P. Talukdar, ‘Numerical investigation on role of vertical electromagnetic brake system in reducing remelting effect and improving thermal characteristics in thin slab continuous casting’, International Journal of Thermal Sciences, Elsevier, <https://doi.org/10.1016/j.ijthermalsci.2023.108434>
5. **P. Jayakrishna**, S. Chakraborty, S. Ganguly, P. Talukdar, ‘Computational investigation of the transient cyclic thermal distortion of funnel shaped mould in thin slab continuous casting process’, Thermal Science and Engineering Progress, Elsevier, <https://doi.org/10.1016/j.tsep.2022.101508>

Conferences

1. A. S. Vaka, **P. Jayakrishna**, S. Chakraborty, S. Ganguly, and P. Talukdar, ‘Application of inverse heat transfer technique in thin slab continuous casting for estimating the interfacial boundary heat flux’, International Conference on Advances in Fluid Flow and Thermal Sciences, 24-26 September 2021, SVNIT Surat, India.